

DEC 29 2005

Serial No. 10/085,575

Please replace the Abstract with the following:

**COMPUTATIONALLY EFFICIENT MEANS FOR OPTIMAL CONTROL WITH  
CONTROL CONSTRAINTS**

**ABSTRACT**

A method and system that reduces undesired vibration in a vehicle measures ambient vibration and generates a first command signal based upon the measured vibration. If a first component of the first command signal exceeds a maximum allowable, the first component of the first command signal must be constrained. A residual vibration resulting from the constraint of the first component is then calculated. A second command signal to compensate for said the residual vibration is then calculated. Force generators are then activated based upon the constrained first component and the second command signal in order to reduce the vibration.